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10/583,371	06/19/2006	Mutsumi Abe	10178/49	3138

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EXAMINER
TO, JENNIFER N

ART UNIT	PAPER NUMBER
2195	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/583,371	ABE, MUTSUMI
Office Action Summary	Examiner	Art Unit	
	JENNIFER N. TO	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 June 2006_.

2a)☐ This action is **FINAL**.　　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-4_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-4_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _19 June 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a)☒ All　b)☐ Some * c)☐ None of:

　　1.☒ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _06/19/2006 & 03/31/2009_.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-4 are presented for examination.

Specification

2.   The title of the invention is not descriptive. A new title is required that is

clearly indicative of the invention to which the claims are directed.

        The following title is suggested:

        --SYSTEM AND METHOD FOR EXECUTING SELECTED TASK BASED

ON TASK MANAGEMENT TABLE HAVING AT LEAST ONE TASK AND TWO

ASSOCIATED PROCESSORS –

3.   The abstract of the disclosure does not commence on a separate sheet in

accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required

and must be presented on a separate sheet, apart from any other text.

4.   The disclosure is objected to because of the following informalities:

typographically error, page 1, line 10, the phrase "There has hitherto been

known" should be written as "There has ~~hitherto~~ been known". Appropriate

correction is required.

Claim Rejections - 35 USC § 101

        35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

5.   Claim 4 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

        Claim 4 is directed to a computer program which is not computer

components or statutory processes. Thus the claimed computer program do not

defined any structural and functional interrelationships between the computer

program and other claimed elements of a computer which permit the computer

program's functionality to be realized. Therefore, they are directed to a non-

statutory subject matter (see MPEP 2106.01 [R-6], and see Lowry, 32 F.3d at

1583-84, 32 USPQ2d at 1035).

Claim Rejections - 35 USC § 112

        The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

6.   Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

        a.   The following terms lacks antecedent basis:

                said processor – claims 1, 2, 3, and 4;

        b.   The claim language in the following claims is not clearly

understood:

As per claim 1, lines 10-14, it is not clearly understood what is meant by "checking, if a processor other than said processor trying to execute the selected task is registered as said main execution processor for the selected task, a stoppage state of said processor registered as said main execution processor" (i.e. "checking if a processor, other than said processor, trying to execute the selected task is registered as said main execution processor for the selected task, then checking a stoppage state of said processor registered as said main execution processor" OR "checking the stoppage state of said processor registered as said main execution processor if a processor other than said processor registered as said main execution processor trying to execute the selected task). For the purpose of examination, examiner will interpret the limitation as "checking the stoppage state of said processor registered as said main execution processor if a processor other than said processor registered as said main execution processor trying to execute the selected task". Lines 15-17, it is not clearly understood what is meant by "an executing unit executing the selected task if said processor registered as said main execution processor remains stopped" (i.e. according to lines 5-7, the two processors are the means that execute the task, thus an executing unit is referred to one of the two processors or it is another means that execute the task). For the purpose of examination, examiner will interpret the limitation as "the processor which is trying to execute the selected task is an execution unit".

As per claims 2-4, they have the same deficiencies as claim 1

above. Therefore, they are rejected for the same reason as claim 1

above. Appropriate corrections are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

7.   Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Dahbura et al (hereafter Dahbura) (U.S. Patent No. 4807228), and in view

of Dwork et al (hereafter Dwork) (U.S. Patent No. 5727210).

8.   Dwork was cited in IDS filed 06/19/2006.

9.   As per claim 1, Dahbura teaches the invention including a task execution

system including at least two processors, comprising:

a task management table registered with an associated relationship

between at least a task, a main execution processor for executing the task and

an in-charge-of-stoppage processor for executing the task (fig. 10; col. 2, lines

63-68; col. 3, line 1, processor status table registered with task ID, and

associated primary processor and secondary processor for executing the task);

a selecting unit selecting an executable task from among tasks registered in said task management table (col. 6, lines 23-29, the controller selecting an executable tasks registered in a processor status table and sending the message to the processor to perform the task); and

an executing unit executing the selected task (col. 6, lines 30-31, the processor performing the task).

Dahbura did not specially teach the in-charge-of-stoppage processor is utilized when said main execution processor stops, a checking unit checking, if a processor other than said processor trying to execute the selected task is registered as said main execution processor for the selected task, a stoppage state of said processor registered as said main execution processor and an executing unit executing the selected task if said processor registered as said main execution processor remains stopped.

However, Dwork teaches the in-charge-of-stoppage processor is utilized when said main execution processor stops (col. 5, lines 53-56; col. 6, lines 9-13, other processor is utilized to perform the task that not being performed by the crash processor) , a checking unit checking, if a processor other than said processor trying to execute the selected task is registered as said main execution processor for the selected task, a stoppage state of said processor registered as said main execution processor (col. 5, lines 53-67; col. 6, lines 1-13, checking the status of the processor registered as said main execution processor if a processor other than said processor registered trying to execute the selected task) and an executing unit executing the selected task if said processor

registered as said main execution processor remains stopped (col. 5, lines 53-67;

col. 6, lines 1-13, the operational processor executing the selected task if the

processor registered as the main execution processor crashed).

It would have been obvious to one of an ordinary skill in the art at the time

the invention was made to have incorporating the teaching of the in-charge-of-

stoppage processor is utilized when said main execution processor stops, a

checking unit checking, if a processor other than said processor trying to execute

the selected task is registered as said main execution processor for the selected

task, a stoppage state of said processor registered as said main execution

processor and an executing unit executing the selected task if said processor

registered as said main execution processor remains stopped as suggested in

Dahbura into Dwork because both of these systems addressing the need of

utilizing extra processor to perform tasks in response to a processor failure, and

by incorporate the teaching of Dwork into Dahbura's system would improve the

integrity of Dahbura's system by improving the efficiency of processor utilization,

which identifying crash failures and reallocating pending tasks efficiently, and

which is sufficiently fault tolerant to guarantee that a pending task will be

executed as long as one or more processors remain operational (Dwork, col. 3,

lines 15-19).

10.   As per claim 2, it is rejected for the same reason as claim 1 above. In

addition, Dahbura teaches a judging unit judging whether or not a task requested

to be registered can be registered as a task of a main execution processor (fig. 2;

col. 3, lines 23-25, determining whether or not a task requested to be registered
as a task of a primary processor), a judging unit judging whether or not the task
requested to be registered can be registered as a task of an in-charge of-
stoppage processor (fig. 2; col. 3, lines 26-30, determining whether or not a task
requested to be registered as a task of a secondary processor), a registering unit
registering, if judged to be registerable as the task of said main execution
processor and if judged to be registerable as a task of said in-charge-of-
stoppage processor (fig. 2; col. 3, lines 23-30, task being assigned to a primary
processor if judged to be registerable as the task of said primary processor, and
task being assigned to a secondary processor if judged to be registerable as the
task of said secondary processor), an associated relationship between the task
requested to be registered, said main execution processor and said in-charge-of-
stoppage processor (fig.10, the same task being assigned to primary processor
and to a secondary processor).

11.   As per claim 3, it is a method claim corresponding to the system claim 1.
Therefore, it is rejected for the same reason as system claim 1.

12.   As per claim 4, it is a computer program claim corresponding to the
system claim 1. Therefore, it is rejected for the same reason as claim 1 above.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sud et al (U.S. Patent No. 5919266) teaches method for fault tolerant operation of a multiprocessor data processing system have a table registered an associated relationship between at least a task, a primary execution processor for executing the task and secondary processor executing the task when said primary execution processor stops.

Freedman et al (U.S. Patent No. 4318173) teaches system and method for selecting and scheduling the tasks to be executed for a scheduling status table.

Wolf et al (U.S. Patent No. 5437032) teaches a task scheduler for user in a multiprocessor, wherein the scheduler attempt to assign each task to a processor for which the task has an affinity to the processor.

Pallister et al (U.S. Publication No. 2004/0064829) teaches method for identifying processor affinity to execute the piece of application software.

Fujibayashi (U.S. Publication No. 2004/0181707) teaches a system for management disaster recovery by utilizing primary and secondary resources.

Thamattoor (U.S. Patent No. 6658595) teaches method for asymmetrically maintaining system operability using a first and second processor, wherein the second processor performs at least one function of the first processor in the event that the first processor fails.

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER N. TO whose telephone number is (571)272-7212. The examiner can normally be reached on M-T 6AM- 3:30 PM, F 6AM- 2:30 PM.

15.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer To/
Patent Examiner, AU 2195